

Title (en)

Down-regulation of gene expression using artificial microRNAs

Title (de)

Herunterregulierung der Genexpression mittels künstlicher miRNAs

Title (fr)

Action de frénation d'expression génétique à l'aide de micro ARN artificiels

Publication

**EP 2261363 B1 20160420 (EN)**

Application

**EP 10009228 A 20081217**

Priority

- EP 08862105 A 20081217
- US 1451207 P 20071218

Abstract (en)

[origin: US2009155910A1] Isolated nucleic acid fragments comprising precursor miRNAs, and artificial miRNAs and their use in down-regulating gene expression are described.

IPC 8 full level

**C12N 15/82** (2006.01); **C12N 5/10** (2006.01)

CPC (source: EP US)

**C12N 15/8216** (2013.01 - EP US); **C12N 15/8218** (2013.01 - EP US); **C12N 15/8242** (2013.01 - US); **C12N 15/8261** (2013.01 - EP US); **Y02A 40/146** (2017.12 - EP US)

Designated contracting state (EPC)

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**US 2009155910 A1 20090618; US 8937217 B2 20150120;** BR PI0819526 A2 20150310; BR PI0819526 B1 20180306; BR PI0819526 B8 20221206; CA 2709404 A1 20090625; CA 2709404 C 20161011; CA 2902719 A1 20090625; CA 2902719 C 20161018; CA 2902723 A1 20090625; CA 2902723 C 20161018; EP 2229447 A2 20100922; EP 2261363 A2 20101215; EP 2261363 A3 20110316; EP 2261363 A8 20110216; EP 2261363 B1 20160420; EP 2270183 A2 20110105; EP 2270183 A3 20110316; EP 2270183 B1 20120613; EP 2458010 A1 20120530; EP 2458010 B1 20130501; ES 2388489 T3 20121015; ES 2421031 T3 20130828; PL 2261363 T3 20161230; US 2011091975 A1 20110421; US 2015087069 A1 20150326; US 9546374 B2 20170117; WO 2009079532 A2 20090625; WO 2009079532 A3 20090917

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**US 33571708 A 20081216;** BR PI0819526 A 20081217; CA 2709404 A 20081217; CA 2902719 A 20081217; CA 2902723 A 20081217; EP 08862105 A 20081217; EP 10009217 A 20081217; EP 10009228 A 20081217; EP 12156244 A 20081217; ES 10009217 T 20081217; ES 12156244 T 20081217; PL 10009228 T 20081217; US 2008087082 W 20081217; US 201414567568 A 20141211; US 80932408 A 20081217